Commonwealth of Massachusetts
Department of Telecommunications and Energy

Service Quality Guidelines for Electric Distribution Companies and Local Gas Distribution Companies	)	D.T.E. 04-116

Initial Comments of the
International Brotherhood of Electrical Workers, Local 103

I. INTRODUCTION

The International Brotherhood of Electrical Workers, Local 103 ("IBEW Local 103") submits these comments in response to the request of the Department of Telecommunications and Energy (the "Department") for comments regarding service quality guidelines for electric distribution companies and local gas distribution companies.

The International Brotherhood of Electrical Workers is an international union with 750,000 member electricians. IBEW Local 103 was founded in 1900, and has 6,000 member electricians in the Greater Boston area. The electricians of IBEW Local 103 are licensed by the Commonwealth of Massachusetts and are highly-trained: each completes a 5-year, state- and federally-certified apprenticeship training program including 1,000 hours of classroom instruction and 10,000 hours of on-the-job training. The members of IBEW Local 103 perform all forms of electrical work, including work on the underground distribution systems of Massachusetts' electric distribution companies.

IBEW Local 103 submits these comments to urge the Department to enhance the provisions of the service quality guidelines that address public and worker safety. In particular, we urge the Department to adopt a service quality standard for the training and procurement of outside contractors that are retained by electric distribution companies to work on the underground distribution system. The work performed by these contractors is critical to the safety and reliability of the distribution system and to the safety of all workers working on the system. The Department should mandate that utilities use only contractors that meet standards for training and qualification.

II. SAFETY IS A CRITICAL COMPONENT OF SERVICE QUALITY GUIDELINES.

Public safety and worker safety are essential goals for a utility service quality plan. The Electric Industry Restructuring Act requires that safety be addressed in service quality plans, and the Department has highlighted the importance of safety relative to other service quality measures. Other goals are also important, but none surpasses safety.

The Electric Industry Restructuring Act directed the Department to establish service quality guidelines for safety. Section 1F(7) of Chapter 164 of the General Laws provides that:

> [t]he department is authorized and directed to promulgate rules and regulations to establish service quality standards for each distribution, transmission, and gas company, including, but not limited to, standards for universal service, customer satisfaction, service outages, telephone service, billing service, and **public and employee safety**.

G.L. c. 164, §1F(7) (emphasis added).

Section 1E of Chapter 164 also addresses the need for safety standards in service quality plans.[1] That section authorizes the Department to establish performance based rates and provides that, in establishing such rates,

> the department shall establish service quality standards for each distribution, transmission, and gas company, including, but not limited to, standards for customer satisfaction service outages, distribution facility upgrades, repairs and maintenance, telephone service, billing service, and **public safety** provided, however, that such service quality standards shall include **benchmarks for employee staff levels and employee training programs** for each such distribution, transmission, and gas company.

G.L. c. 164, §1E(a) (emphasis added).

The Department has recognized that safety measures are a particularly important element of a service quality scheme. In discussing the relative weight of penalty measures, the Department explained that "those performance standards which are critical to a gas and electric distribution companies' safe and efficient operation should carry a greater penalty than others." Service Quality Standards, D.T.E. 99-84, at 32 (2001).

Similarly, in discussing the appropriateness of establishing higher service quality penalties for Boston Gas than for NYNEX, the Department explained:

> It is self-evident that service quality failures for a gas utility may carry greater consequences than those of a telephone company, as illustrated by the effect of a gas main explosion versus dial tone failure. **Hence, a greater penalty in proportion to a utility's revenues is warranted in situations where public safety considerations exist.**

Boston Gas Company, D.P.U. 96-50-D, at 12, n.6 (2001) (emphasis added).

[1] Section 1E applies explicitly to service quality plans adopted as part of performance based rate schemes. Accordingly, the Department has observed that it is guided, but not bound, by the requirements of section 1E when reviewing a service quality plan outside of a PBR scheme. Massachusetts Electric Company, D.T.E. 01-71B, at 21 – 22 (2002). However, this limitation does not apply to the language of G.L. c. 164, section 1F(7), discussed above. The directives of that section apply to all service quality plans, whether or not they are part of a performance based rate scheme.

All of the performance measures are, of course, important. However, there can be no doubt that, as between telephone answering time and safety, safety is paramount.[2]

III. THE CURRENT SERVICE QUALTIY GUIDELINES DO NOT ADEQUATELY ADDRESS SAFETY MEASURES.

The current guidelines do not adequately address safety issues. For electric distribution companies, only one safety-related measure carries a revenue penalty – the lost work-time accident rate. And, that measure is responsible for only **10%** of the total maximum penalty. Service Quality Standards, D.T.E. 99-84, Attachment 1, at 13 (2001). This is a lower percentage than is assigned to the telephone answering rate! Id. Moreover, the lost work time accident rate measure applies only to accidents involving company employees. It ignores accidents involving outside contractors. The only other safety-related measure – incidents where property damage exceeds $50,000 – is only a reporting requirement; there is no revenue penalty. Service Quality Standards, D.T.E. 99-84, at 17 – 18 (2001).

The scant attention to safety for electric distribution companies contrasts sharply with the focus on safety for the gas distribution companies. For gas companies, a safety related measure – Class I and Class II Odor calls – accounts for **45%** of the maximum total penalty. Service Quality Standards,

[2] Governor Romney articulated the administration's priority on safety when discussing the recent incident in which four high school students were struck by a pickup truck while walking to school on the VFW Parkway. According to the *The Boston Globe* report, "'Our focus has to be on public safety,' said the governor. 'That comes first, and there really can't be any latitude on that front.'" *Students Hit on Parkway; Official Quits,* The Boston Globe, February 5, 2005, at 1. See also, *2d Official Ousted at State Parks Agency,* The Boston Globe, February 8, 2005, at 1; *Two More Senior Officials Ousted at State Parks Agency*, The Boston Globe, February 11, 2005, at B2.

D.T.E. 99-84, Attachment 1, at 13. Moreover, for the gas distribution companies the Department's Pipeline Engineering and Safety Division enforces safety rules. The Department has no counterpart for electric companies.

IV. THE NEED FOR MORE EXTENSIVE REGULATION OF SAFETY WAS EXPOSED BY THE RECENT STRING OF MANHOLE EXPLOSIONS AND THE DEPARTMENT'S INVESTIGATION INTO THOSE INCIDENTS.

The need for more extensive regulation of electrical safety was brought home by a series of manhole explosions in 2004 and early 2005. Despite the obvious severity of these incidents, they are not even covered by the existing service quality guidelines. Moreover, in the course of investigations launched by both the Department and the Legislature, it was revealed that distribution companies had not even been tracking manhole explosions. Instead, the company's tracking was focused on reliability, which is the centerpiece of the existing guidelines. The Department should enhance the safety-related guidelines to bring more attention to that area.

A. The Manhole Explosions

Massachusetts has been rocked by a series of manhole fires and explosions, including a very serious incident in which a manhole exploded with such force that it sent the 189-pound[3] manhole cover flying into the air and through the windshield of a passing car, critically injuring an 18-year-old boy.

- **July 2, 2004: Manhole fire in Chestnut Hill.** Fire crews reported seeing smoke pouring up from a manhole and an electrical cable on fire inside the manhole. *Fire Log*, Newton Tab, July 14, 2004.

[3] Letter of Werner J. Schweiger to Ronald F. LeComte, July 29, 2004 at 3.

- **July 20, 2004: Manhole explosion in Natick.** A manhole cover was propelled through the windshield of a passing car, striking an 18-year-old passenger. The boy was taken by helicopter to Massachusetts General Hospital, where he was listed in critical condition. According to press reports, witnesses told police that flames from the explosion shot 25 feet into the air. *Flying Manhole Cover Critically Hurts Teen*, Boston Herald, July 21, 2004; *Manhole Cover Explodes, Hurting Motorist*, The Boston Globe, July 21, 2004 at B2.

- **July 22, 2004: Manhole explosion in Shrewsbury.** According to Fire Chief Gerald LaFlamme, an "'explosion caused an 8-foot by 8-foot section of the entire Rte. 9 roadway, about 6 inches thick, to vault about 20 feet into the air and come back down again.'" *Explosion Rips Open Manhole Cover along Rte. 9 in Shrewsbury*, Daily News Tribune, July 24, 2004.

- **July 30, 2004: Manhole explosion in Newton.** A manhole cover was blown onto the street. *Manhole Cover Pops in Newton Outage*, MetroWest Daily News, August 2, 2004.

- **August 2, 2004: Manhole explosion in Framingham.** A manhole cover was shot upwards into a car. *Manhole Explodes under Woman's Car*, MetroWest Daily News, August 3, 2004.

- **December 23, 2004: Manhole explosion in Boston.** A manhole cover was shot upwards into a passing car. *Manhole Explodes under Passing Car*, The Boston Globe, December 24, 2004.

- **February 23, 2005: Manhole incident in West Roxbury.** An electrical equipment failure caused a manhole cover to explode up and off the ground at 11:45 a.m. *Manhole Cover Explodes*, West Roxbury and Roslindale Transcript, February 25, 2005.

B. The Existing Regulatory Framework is Insufficient to Address these Serious Safety Incidents.

It is apparent that the existing regulatory framework is not sufficient to address serious, safety-related incidents such as the recent manhole explosions.

First, the existing service quality guidelines contain no penalty provisions that address the public danger caused by exploding manholes. Insofar as the explosions resulted in power outages, there may be a penalty because a number

of customers lost power. However, there is no penalty for the public safety aspects of the incidents.

Second, in the course of the Department's investigation and the Legislative hearing into these incidents, it became clear that at least some distribution companies did not even track manhole explosions.

For example, Massachusetts Electric explained that its tracking focused on reliability, and that indeed the company "maintains a data base of all events that result in an outage affecting two or more customers for more than one minute." (Letter of Edward J. Dienst, Sr. VP, NE Operations, Massachusetts Electric Company, to Mary L. Cottrell, September 1, 2004 at 5; Testimony of Edward J. Dienst before the Joint Committee on Government Regulations, October 13, 2004.) However, the company had "no formal tracking process specific to manhole incidents." (Letter of Edward J. Dienst to Mary L. Cottrell, August 3, 2004 at 6.) In response to the July 2004 incidents, both Massachusetts Electric and NSTAR Electric implemented systems for tracking manhole incidents. (Id; NSTAR Electric Company, Maintenance, Inspection and Replacement Practices for Underground Electric Distribution Facilities, September 1, 2004 at 14.)

The companies' intense focus on reliability, tracking all outages affecting "two or more customers for more than one minute," contrasted with the failure to track manhole explosions, shows the potential "perverse" effect of service quality standards. As the Department observed regarding service quality incentives, an incentive structure:

> may produce a ***perverse*** incentive on the part of utilities to incur significant expenditures on areas that, although producing

> incrementally small SQ improvements, would generate disproportionately greater rewards to the utility, perhaps to the detriment of overall operations.

Service Quality Standards, D.T.E. 99-84, at 45 – 46 (2000) (emphasis added).

The existing service quality guidelines may have had a similar effect. The guidelines' focus on telephone answering and reliability has drawn the distribution companies' attention to those areas, perhaps to the detriment of others. The effect of service quality standards is to draw attention to the areas covered by the standards. Given that attention is finite, some other areas lose attention as a result. It is therefore critical to add a strong safety component to the guidelines.

V. TO ENSURE SAFETY, THE DEPARTMENT SHOULD ADOPT SERVICE QUALITY GUIDELINES COVERING TRAINING AND PROCUREMENT OF OUTSIDE ELECTRICAL CONTRACTORS THAT WORK ON THE UNDERGROND SYSTEM.

A skilled workforce is critical to the safety of the underground system.

Unfortunately, however, there is currently no government-approved training requirement that is being applied to all outside contractors working on that system. Some contractors have completed a federally-certified apprenticeship training program; others, unfortunately, have not. Moreover, some distribution companies are using unlicensed electricians, and so are avoiding the training required for licensure by the Commonwealth.[4]

The Department should fill this gap by adding an electrical contractor training requirement to the service quality standards. Rather than developing a

[4] For licensure as a journeyman electrician, the Commonwealth requires 600 hours of classroom training and 8,000 hours of supervised, on-the-job training. In addition, the applicant must pass a licensure exam. 237 CMR 13.02.

requirement on its own, the Department should simply require that all outside electrical contractors use electricians that have completed a state- and federally-approved apprenticeship training program. Massachusetts Electric Company has adopted such a requirement to ensure safety on its system. The Department should extend the requirement to the other companies to ensure safety across the Commonwealth.

A. A Skilled Workforce is Critical to the Safety and Reliability of the Underground System.

A skilled workforce is critical to the safety and reliability of the underground system in two respects: workmanship and inspections.

Workmanship

It is the underground workers who run and splice the cables. A safe and reliable system begins with good workmanship.

Massachusetts Electric Company highlighted this issue in its response to the Department's inquiry regarding manhole event mitigation strategies. The company reported that it uses a "four-pronged" approach to prevent failures:

A. Purchase high quality materials.

B. ***Ensure first class workmanship through training.***

C. ***Monitor*** materials, ***workmanship***, and operating characteristics of cable and equipment.

D. Control the operating conditions.

(Letter of Edward J. Dienst to Mary L. Cottrell re Maintenance and Inspection Practices of Underground Facilities, p.7 (September 1, 2004) (emphasis added))

Massachusetts Electric further noted that "[w]orkmanship, particularly in cable splicing, is . . . a critical component of a reliable distribution system." (Id, p.8)

Inspections

It is standard practice at all utilities for workers to inspect every manhole upon entry. Utilities rely on these inspections as a key source of information regarding the condition of their underground systems.

Unitil has described its inspection procedures as follows:

> Unitil inspects every manhole upon entry. All inspections are documented and if problems are found, they are prioritized and fixed within a reasonable timeframe. Typical areas of inspection consist of overall conditions of manhole, leaking joints, stray voltage, and damaged racks.

Maintenance and Inspection Practices of Underground Facilities, Unitil Response to DTE-1-1 (August 31, 2004).

Thus, the skills and training of the underground workforce is again critical: inspections are only as good as the inspectors.

B. The Skills and Qualifications of Outside Electrical Contractors is Critical to the Safety and Reliability of the Underground System.

It is common practice for utilities to use outside electrical contractors for work in manholes. Just as with company employees, the skill and training of these workers is critical to the integrity of the system.

At a hearing on October 13, 2004, the co-chairs of the Joint Committee on Government Regulations questioned Edward Dienst of Massachusetts Electric about the level of training of the outside electrical contractors used by the

company. Mr. Dienst testified that the training of these workers is "very important," especially for underground work because underground work is "out of sight, out of mind." (Testimony of Edward J. Dienst, Sr. VP NE Operations, Massachusetts Electric Company, before the Joint Committee on Government Regulations (October 13, 2004))

C. The Service Quality Guidelines should establish Standards for Training and Procurement.

Training

The Service Quality Guidelines should require that all outside electrical contractors use electricians that have completed an apprenticeship training program that has been approved by the US Department of Labor's Bureau of Apprenticeship and Training and by the Division of Apprentice Training of the Massachusetts Department of Labor and Workforce Development. These government agencies ensure that the programs meet standards for recruitment and selection procedures, minimum hours of related instruction, minimum hours of on-the-job training, and apprentice supervision and evaluation.[5]

Massachusetts Electric Company has adopted such a requirement for its outside electrical contractors. Massachusetts Electric requires that its contractors meet the qualifications set forth in the Northeastern Joint Apprenticeship and Training Program.[6] (Letter of Amy Rabinowitz to Mary

[5] An example of such an approved program is the Joint Apprentice and Training Committee of the Boston Chapter of the National Electrical Contractors Association and IBEW Local 103. This 5-year training program includes 1,000 hours of classroom instruction and 10,000 hours of on-the-job training.

[6] The Northeastern Joint Apprenticeship and Training Program is based in Pennsylvania. Like the program run by the Joint Apprentice and Training Committee in Boston, it is approved by the US Department of Labor. However, the Boston program requires more hours of on-the-job training (10,000 hours vs. 7,000 hours).

Cottrell re Maintenance and Inspection Practices of Underground Facilities, p. 2 (January 21, 2005)) That training program is approved by the US Department of Labor's Bureau of Apprenticeship and Training. (Id, at Attachment E)

The need for a training standard is particularly acute because at least some distribution companies have taken the position that they may use unlicensed electricians to perform work on the underground system.[7] For example, as NSTAR explains its position:

> Specific licensing requirements are not a component of the NESC, and therefore, are not a requirement to perform construction and maintenance activities on the NSTAR Electric system.

(Letter of Kerry Britland to Ronald F. LeComte re Maintenance and Inspection Practices of Underground Facilities, p. 2 (January 21, 2005))

In the absence of licensure, there is no formal training requirement for electricians working on underground distribution systems. None. Massachusetts Electric Company has adopted a training requirement to ensure safety on its system. The Department should extend that requirement to the other companies to ensure safety across the Commonwealth.

Procurement

The Service Quality Guidelines should also address the procurement of outside electrical contractors. Utilities should be required to use an open and fair

[7] It is the position of IBEW Local 103 that Massachusetts law requires that outside electrical contractors be licensed. Section seven of Chapter 141 of the General Laws exempts utility employees from licensure requirements. However, that exemption does not extend to contractors. There is a solid rational for exempting utility employees from licensure requirements: utilities have traditionally provided extensive training programs for their employees. However, that rationale does not extend to outside contractors, many of whom have little or no formal training. IBEW Local 103 does not ask the Department to rule on whether licensure is required for outside contractors. We ask only that the Department recognize that by eschewing licensing requirements the distribution companies are also eschewing the training requirements that go along with licensure.

procurement process that considers, among other factors, contractor training and experience.

Competitive procurements are essential to ensure safe, quality workmanship at a fair price. No bid contracts should be expressly forbidden, as should pre-approved bidders lists, which can limit work to an old boys' network of favored firms.

VI. THERE SHOULD BE A SINGIFICANT REVENUE IMPACT ASSOCIATED WITH SAFETY RELATED GUIDELINES AND PUBLIC REPORTING OF PERFORMANCE.

Revenue Impact

There should be a significant revenue impact for all safety-related guidelines. As the Department has observed, a financial impact "is an important and necessary component of a service quality plan in that it provides companies with a direct financial incentive motivation to meet or exceed established performance standards." Boston Edison Company, D.T.E. 99-19, at 106 (1999), citing NIPSCO-Bay State Acquisition, D.T.E. 98-31, at 31-32 (1998); Boston Gas Company, D.P.U. 96-50-C, at 71-72 (1997); Boston Gas Company, D.P.U. 96-50 (Phase One), at 310 (1996); NYNEX Price Cap, D.P.U. 94-50, at 235-238 (1995).

The revenue impact for the safety-related measures should be significant. When the Department sets the relative weights of the penalties associated with the performance measures, the Department is establishing priorities for the companies. Safety should be the first priority.

Public Reporting

In addition to a significant revenue impact, the Department should require truly public reporting of the companies' service quality performance. The Department should prepare a summary report that describes the performance of the distribution companies relative to each other. The report should be written in language that the public can understand, be released to the press, and posted in a prominent place on the Department's web site.[8] Public posting of relative performance would create competition between the companies and would be a powerful motivator for improved service quality performance.

VII. CONCLUSION

IBEW, Local 103 respectfully requests the Department modify its service quality guidelines in accordance with the foregoing recommendations.

Respectfully submitted,

INTERNATIONAL BROTHERHOOD OF
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By its attorney,

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[8] For an example of such a report, see two reports issued by the Pennsylvania Commission: 2003 Customer Service Performance: Pennsylvania Electric and Natural Gas Distribution Companies and Utility Consumer Activities Report and Evaluation 2003. The reports are available on the web at http://www.puc.state.pa.us/general/publications_reports/publications_reports_yearly.aspx.